

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-5. Cancelled.

6. (Currently Amended) A hydraulic braking system ~~according to claim 5,~~
comprising:

a fluid pressure cylinder having a housing and comprising a pressurizing piston with a large-radius portion and a small-radius portion which is fluid-tightly and slidably received in said housing and which cooperates with said housing to define a first pressurizing chamber and a second pressurizing chamber, a working fluid in said first and second pressurizing chamber being pressurized by an advance of said pressurizing piston;

a brake comprising a brake cylinder which is connected to said fluid pressurizing cylinder and which is activated by said working fluid pressurized in said fluid pressurizing cylinder;

a master cut valve provided between the brake cylinder and the front pressurizing chamber, which permits flow in its open position and inhibits flow in its closed position;

a brake pressure control device provided between said master cut valve and the brake cylinder and which controls a fluid pressure in the brake cylinder based on a braking operation in the closed state of the master cut valve;

a working fluid source connected to said fluid pressure cylinder;

a first-fill device provided between said working fluid source and said first pressurizing chamber, for inhibiting a flow of said working fluid from said first pressurizing chamber to said working fluid source if a fluid pressure in said first pressurizing chamber is lower than a predetermined value and permitting said flow of said working fluid from said first pressurizing chamber to said working fluid source if said fluid pressure in said first pressurizing chamber is higher than said predetermined value; and

a first-fill selecting device for selecting a mode between an enable mode of said first-fill device and a disabled mode of said first-fill device;

wherein said fluid pressure cylinder is a master cylinder is a master cylinder comprising a pressurizing piston operatively connected to a brake operating member, said pressurizing piston being moved by said brake operating member to pressurize said working fluid in said first and second pressurizing chamber, and said hydraulic braking system further comprises (a) a brake pressure control device for controlling a fluid pressure in said brake cylinder in a mode wherein said brake cylinder is disconnected from said master cylinder; and (b) a master cut valve for selecting a mode between a master-pressure working mode wherein said brake is worked by said working fluid supplied to said brake cylinder from said master cylinder, and a control-pressure working mode wherein said brake is worked by said fluid pressure in said brake cylinder controlled by said brake pressure control device; and

~~further comprising~~ (a) a stroke simulator for applying an opposite force to said pressurizing piston based on an operating force of said brake operating member, allowing said pressurizing piston to move in said master cylinder; and (b) a simulator

control device for inhibiting said stroke simulator from working at least at a pressure less than a predetermined value in said master-pressure working mode selected by said brake system mode selecting device and permitting said stroke simulator to work in said control-pressure working mode.

7. Cancelled.

8. (Currently amended) A hydraulic braking system ~~according to claim 7,~~
comprising:

a low pressure working fluid source storing a working fluid at approximately atmospheric pressure;

a master cylinder having (1) a housing, (2) a pressurizing piston which is fluid-tightly and slidably received in said housing, which cooperates with said housing to define a front pressurizing chamber connected to the brake cylinder, and which is operatively connected to a brake operating member, said pressurizing piston being moved by said brake operating member to pressurize said working fluid in said front pressurizing chamber, and (3) a supply control device which permits a flow of said working fluid from said front pressurizing chamber to said low pressure working fluid source in a state wherein said pressurizing piston is at a rearmost position end and inhibits said flow in another state;

a flow inhibiting device which is provided between said master cylinder and said low pressure working fluid source and which inhibits said flow of said working fluid from said front pressurizing chamber to said low pressure working fluid source even in said

state wherein said supply control device should permit said flow, if a fluid pressure in said front pressurizing chamber is unusual relative to an operation of said brake operating member;

a brake cylinder which is activated by said pressurized working fluid;

a master-cut valve which is disposed between said brake cylinder and said front pressurizing chamber and which permits a flow in its open position and inhibits said flow in its closed position; and

a brake pressure control device which is provided between said master-cut valve and said brake cylinder and which controls a fluid pressure in said brake cylinder based on a braking operation in said closed state of said master-cut valve;

wherein said flow inhibiting device comprises a flow inhibiting valve which inhibits said flow of said working fluid from said front pressurizing chamber to said low pressure working fluid source if said fluid pressure in said brake cylinder is actually lower than a value based on said fluid pressure in said front pressurizing chamber in said master cylinder ~~although said fluid pressure in said brake cylinder should be controlled to be higher than that in said front pressurizing chamber by said brake pressure control device.~~

9. (Currently Amended) A hydraulic braking system ~~according to claim 7,~~
comprising:

a low pressure working fluid source storing a working fluid at approximately atmospheric pressure;

a master cylinder having (1) a housing, (2) a pressurizing piston which is fluid-tightly and slidably received in said housing, which cooperates with said housing to define a front pressurizing chamber connected to the brake cylinder, and which is operatively connected to a brake operating member, said pressurizing piston being moved by said brake operating member to pressurize said working fluid in said front pressurizing chamber, and (3) a supply control device which permits a flow of said working fluid from said front pressurizing chamber to said low pressure working fluid source in a state wherein said pressurizing piston is at a rearmost position end and inhibits said flow in another state;

a flow inhibiting device which is provided between said master cylinder and said low pressure working fluid source and which inhibits said flow of said working fluid from said front pressurizing chamber to said low pressure working fluid source even in said state wherein said supply control device should permit said flow, if a fluid pressure in said front pressurizing chamber is unusual relative to an operation of said brake operating member;

a brake cylinder which is activated by said pressurized working fluid;

a master-cut valve which is disposed between said brake cylinder and said front pressurizing chamber and which permits a flow in its open position and inhibits said flow in its closed position; and

a brake pressure control device which is provided between said master-cut valve and said brake cylinder and which controls a fluid pressure in said brake cylinder based on a braking operation in said closed state of said master-cut valve;

wherein said flow inhibiting device comprises a flow inhibiting valve which inhibits said flow of said working fluid from said front pressurizing chamber to said low pressure working fluid source if said fluid pressure in said front pressurizing chamber of said master cylinder is actually higher than a value based on a predetermined relationship with an operating force of said brake operating member ~~although said fluid pressure in said brake cylinder should be controlled to be higher than that in said front pressurizing chamber.~~

10. (Currently Amended) A hydraulic braking system ~~according to claim 7,~~
~~further~~ comprising:

a low pressure working fluid source storing a working fluid at approximately atmospheric pressure;

a master cylinder having (1) a housing, (2) a pressurizing piston which is fluid-tightly and slidably received in said housing, which cooperates with said housing to define a front pressurizing chamber connected to the brake cylinder, and which is operatively connected to a brake operating member, said pressurizing piston being moved by said brake operating member to pressurize said working fluid in said front pressurizing chamber, and (3) a supply control device which permits a flow of said working fluid from said front pressurizing chamber to said low pressure working fluid source in a state wherein said pressurizing piston is at a rearmost position end and inhibits said flow in another state;

a flow inhibiting device which is provided between said master cylinder and said low pressure working fluid source and which inhibits said flow of said working fluid from

said front pressurizing chamber to said low pressure working fluid source even in said state wherein said supply control device should permit said flow, if a fluid pressure in said front pressurizing chamber is unusual relative to an operation of said brake operating member;

a brake cylinder which is activated by said pressurized working fluid;

a master-cut valve which is disposed between said brake cylinder and said front pressurizing chamber and which permits a flow in its open position and inhibits said flow in its closed position; and

a brake pressure control device which is provided between said master-cut valve and said brake cylinder and which controls a fluid pressure in said brake cylinder based on a braking operation in said closed state of said master-cut valve;

a stroke simulator which applies an opposite force to said pressurizing piston based on an operating force of said brake operating member, allowing said brake operating member to move, and said flow inhibiting device comprises a flow inhibiting valve which inhibits said flow of said working fluid from said front pressurizing chamber to said low pressure working fluid source if said fluid pressure in said front pressurizing chamber of said master cylinder is actually higher than a value based on an operating stroke of said brake operating member although said fluid pressure in said brake cylinder should be controlled to be higher than that in said front pressurizing chamber.

11-12. Cancelled.

13. (Currently Amended) A hydraulic braking system ~~according to claim 7,~~

~~further~~ comprising:

a low pressure working fluid source storing a working fluid at approximately atmospheric pressure;

a master cylinder having (1) a housing, (2) a pressurizing piston which is fluid-tightly and slidably received in said housing, which cooperates with said housing to define a front pressurizing chamber connected to the brake cylinder, and which is operatively connected to a brake operating member, said pressurizing piston being moved by said brake operating member to pressurize said working fluid in said front pressurizing chamber, and (3) a supply control device which permits a flow of said working fluid from said front pressurizing chamber to said low pressure working fluid source in a state wherein said pressurizing piston is at a rearmost position end and inhibits said flow in another state;

a flow inhibiting device which is provided between said master cylinder and said low pressure working fluid source and which inhibits said flow of said working fluid from said front pressurizing chamber to said low pressure working fluid source even in said state wherein said supply control device should permit said flow, if a fluid pressure in said front pressurizing chamber is unusual relative to an operation of said brake operating member;

a brake cylinder which is activated by said pressurized working fluid;

a master-cut valve which is disposed between said brake cylinder and said front pressurizing chamber and which permits a flow in its open position and inhibits said flow in its closed position; and

a brake pressure control device which is provided between said master-cut valve and said brake cylinder and which controls a fluid pressure in said brake cylinder based on a braking operation in said closed state of said master-cut valve;

a stroke simulator which comprises (a) a housing, (b) a simulator piston defining a first chamber connected to said front pressurizing chamber and a second chamber connected to said low pressure working fluid source in said housing, and (c) a spring means for biasing said simulator piston in the direction that causes a reduction of the volume of said first chamber; and a simulator control valve which is disposed between said low pressure working fluid source and said second chamber and which selectively connects said low pressure working fluid source to said second chamber and disconnects said low pressure working fluid source from said second chamber.

14. (Currently Amended) A hydraulic braking system ~~according to claim 8,~~
comprising:

a low pressure working fluid source storing a working fluid at approximately atmospheric pressure;

a master cylinder having (1) a housing, (2) a pressurizing piston which is fluid-tightly and slidably received in said housing, which cooperates with said housing to define a front pressurizing chamber connected to the brake cylinder, and which is operatively connected to a brake operating member, said pressurizing piston being moved by said brake operating member to pressurize said working fluid in said front pressurizing chamber, and (3) a supply control device which permits a flow of said working fluid from said front pressurizing chamber to said low pressure working fluid

source in a state wherein said pressurizing piston is at a rearmost position end and inhibits said flow in another state;

a flow inhibiting device which is provided between said master cylinder and said low pressure working fluid source and which inhibits said flow of said working fluid from said front pressurizing chamber to said low pressure working fluid source even in said state wherein said supply control device should permit said flow, if a fluid pressure in said front pressurizing chamber is unusual relative to an operation of said brake operating member;

a brake cylinder which is activated by said pressurized working fluid;

a master-cut valve which is disposed between said brake cylinder and said front pressurizing chamber and which permits a flow in its open position and inhibits said flow in its closed position; and

a brake pressure control device which is provided between said master-cut valve and said brake cylinder and which controls a fluid pressure in said brake cylinder based on a braking operation in said closed state of said master-cut valve;

wherein said flow inhibiting device comprises a flow inhibiting valve which inhibits said flow of said working fluid from said front pressurizing chamber to said low pressure working fluid source if said fluid pressure in said brake cylinder is actually lower than a value based on said fluid pressure in said front pressurizing chamber in said master cylinder; and

wherein said brake pressure control device comprises (a) an operating force sensor which senses applied operating force to said brake operating member by an operator, and (b) an operating force-brake pressure controller which controls said fluid

pressure in said brake cylinder based on said operating force of said brake operating member at least in said flow inhibiting mode wherein said flow inhibiting device inhibits said flow of said working fluid from said front pressurizing chamber to said low pressure working fluid source.

15. (Previously Amended) A hydraulic braking system, comprising:

a low pressure working fluid source storing a working fluid at approximately atmospheric pressure;

a master cylinder having (1) a housing, (2) a pressurizing piston which is fluid-tightly and slidably received in said housing, which cooperates with said housing to define a front pressurizing chamber, and which operatively connected to a brake operating member, said pressurizing piston being moved by said brake operating member to pressurize said working fluid in said front pressurizing chamber, and (3) a supply control device which permits a flow of said working fluid from said front pressurizing chamber to said low pressure working fluid source in a state the pressurizing piston is at a rearmost position and inhibits said flow in another state;

a brake cylinder which is activated by said pressurized working fluid;

a master-cut valve which is disposed between said brake cylinder and said front pressurizing chamber and which permits a flow in its open position and inhibits said flow in its closed position;

a brake pressure control device which is provided between said master-cut valve and said brake cylinder and which controls said fluid pressure in said brake cylinder based on a braking operation in said closed state of said master-cut valve;

a master-cut valve malfunction probability detector which detects probability of a malfunction of said master-cut valve;

a flow inhibiting device which is provided between said master cylinder and said low pressure working fluid source and which inhibits said flow of said working fluid from said front pressurizing chamber to said low pressure working fluid source even in a state wherein said flow control device permits said flow, if said master-cut valve malfunction probability detector detects probability of said malfunction of said master-cut valve.

16-22. Cancelled.